

# THE BULLETIN

SEPTEMBER 30, 1996 ~ 50TH YEAR ~ NUMBER 4

## Centre for Staff Development Opens

**Y**OU WOULDN'T BE FAR OFF THE mark if you thought a new school had suddenly appeared on campus last week.

The Staff Development Resource Centre, which officially opened Sept. 26, comes complete with instructors, computer classrooms, a multimedia library and a learning lab.

As Professor Michael Finlayson, vice-president (administration and human resources), remarked, "This is a very successful embodiment of the training and career development policy for administrative staff created a year ago." The policy states that the

university is committed to helping staff develop and maintain their potential for continuous employment.

The centre offers in-depth career counselling, a résumé clinic, job search and career development workshops, study areas and a room for video and audio courses as well as numerous, up-to-date computer training packages such as Windows, Word, Power Point and Excel.

One reason the centre was created is that many employees at the university must reskill for jobs

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## The Highest Honor

**T**HREE PROFESSORS, A CURRENT and a former member of Governing Council and two alumni are among 22 citizens who have received the province's highest honor, the Order of Ontario.

The award recognizes those who have enriched the lives of others by attaining the highest standards of excellence and achievement in their fields. It was presented to recipients on Sept. 26 by the lieutenant-governor of Ontario.

Among the six with ties to U of T is Avie Bennett, who heads both McClelland & Stewart, Canada's largest publishing company, and First Plazas, a real estate firm. He was honored for his many contributions to the arts, education and medicine. Awarded the Order of Canada in 1991, Bennett also holds an honorary

doctor of laws degree from U of T, bestowed in 1995. He served on Governing Council from 1987 to 1993.

Dr. Charles M. Godfrey, professor emeritus of the department of medicine, was cited for his leadership in the development of rehabilitation programs for cancer patients. Godfrey is highly respected for his work in international medical aid programs and as a medical historian.

A member of council since 1989, Kamala-Jean Gopie is a graduate of both Woodsworth College and the Ontario Institute for Studies in Education. She was cited for her 20-year record of community leadership and achievement. Numerous awards have acknowledged Gopie and her work in organizing and fund raising

~ See HIGHEST: Page 3 ~

## Stutterers Use Right Side of Brain

BY MICHAEL RYNNOR

**A** UNIVERSITY STUDY IS SHEDDING light on a medical mystery that has baffled doctors for centuries. As recently as two decades ago experts believed the age-old affliction of stuttering was either an emotional or a psychological problem. But three researchers working with the Clarke Institute of Psychiatry are taking some amazing "pictures" of what goes on when a person stutters and the pictures show that the problem is a neurological one.

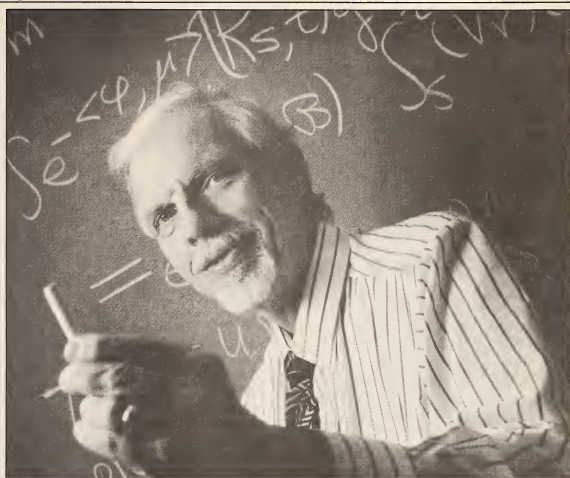
Two years ago Professors Luc De Nil, Robert Kroll and Sylvain Houle of psychiatry began using PET scan (positron emission tomography) technology to look inside the brain while stuttering actually occurs. Most people use the left hemisphere of their brain when they speak but the

PET scans showed that stutterers rely on the right hemisphere to talk — the side that is the least equipped to handle speech.

A PET scan is similar to a CAT scan, the main difference being that a CAT scan takes a still picture of the brain while a PET scan shows moving images of brain activity. These images are achieved by injecting low levels of radioactive water into the bloodstream. As blood reaches the head, the PET scan picks up the radioactive particles which show up on a monitor.

"Somehow you must be predisposed to stuttering and that predisposition is probably neurological in nature," De Nil said in an interview. "For some people it will be so strong that no matter what environment

~ See STUTTERERS: Page 4 ~



Donald Dawson

## A GOLDEN AGE FOR MATH

Head of Fields Institute excited by rapid developments in technology

BY SUZANNE SOTO

**T**HROUGHOUT RECORDED WESTERN HISTORY there were times when it was particularly exhilarating to be a mathematician — around 1700 B.C. in Babylonia as algebra and geometry developed; in Greece when Euclid expanded geometry's boundaries in 300 B.C.; and in 17th-century Europe during the scientific revolution.

Donald Dawson, the new director of the Fields Institute for Research in Mathematics on the St. George campus and a professor with the department of mathematics, believes we're in one of those times again and nothing could make him happier.

"We're in another golden age of mathematics in many ways," says Dawson, who began his five-year term July 1. "The tremendous developments we're seeing in science, technology and medicine, and the large-scale computer experimentation that's taking place, are adding a whole new dimension to mathematical research."

Technology is evolving and stimulating mathematical activity at an unprecedented speed, Dawson says. "The time between when a mathematical discovery may be made and when it's applied in a field like computers, for example, has become much shorter. In the past it may have taken 100 years for knowledge to be applied. Now every couple of years there is a completely new generation of computers."

The last few years, he adds, have also brought major breakthroughs such as Andrew Wiles' solution to the 350-year-old Fermat problem and the discovery of totally unexpected deep connections between quantum theory and low dimensional topology.

All of these developments make it exciting for Dawson to head one of the leading mathematical research institutes in the world.

Born in Montreal, Dawson holds a B.Sc. in mathematics and physics and an M.Sc. in mathematics from McGill University. He also has a PhD in mathematics from the Massachusetts Institute of Technology. During the last year of his PhD studies, he worked in the space division of Raytheon Corp. in Massachusetts and although enjoying it, he realized he preferred basic research more.

"Industrial research is very challenging but my temperament is more suited to academic research in which we choose our own topics and own time frames," he explains. "Of course when I came back to academic life in Canada my salary was cut in half. I guess I was young and foolish! But I have never regretted it."

Dawson taught mathematics at McGill for seven years before joining Carleton's mathematics and statistics department in 1970. He specializes in probability theory, an area of mathematics that has developed dramatically over the past 60 years.

"The early colorful history of the subject was in gambling — calculating the probabilities of winning at black jack and that kind of thing," he says. In the 1930s, however, Norbert Wiener gave a rigorous definition of Brownian motion and A.N. Kolmogorov developed the axiomatic foundation for probability, events that Dawson says transformed probability theory into mainstream mathematics. Today, the subject has important connections with other fields of mathematics and is a basic tool in such areas as statistical physics, communications, finance and genetics.

It may not be apparent to everyone but there is a very creative side to mathematics, Dawson notes. "The methodology used to solve problems is based on very rigorous logic but solving those problems is an act of creation, just like writing a piece of music or writing a poem."

The Fields' staff and various visiting scholars, who come from across Canada and around the world, are engaged in this type of creative work and a large part of Dawson's job as director is to foster their research and develop new academic collaborations. His other mandates are to initiate more interaction between the mathematical science community and Canadian industry and to contribute to the Canadian education system by working with its various levels.

"It's a real challenge but I think the Fields is uniquely placed to do this," he declares. "The institute is already well known around the world, in part because it builds on the vision of providing a place where top scientists can conduct leading-edge mathematical research."

## AWARDS & HONORS

### Faculty of Applied Science & Engineering

PROFESSOR MICHAEL COLLINS OF CIVIL ENGINEERING HAS BEEN AWARDED THE 1996 MEDAL FOR DISTINCTION IN ENGINEERING EDUCATION BY THE CANADIAN COUNCIL OF PROFESSIONAL ENGINEERS. The award recognizes an exemplary contribution to teaching and learning of the engineering profession in Canadian Universities.

### Faculty of Arts & Science

PROFESSOR EVA KUSHNER OF THE CENTRE FOR COMPARATIVE LITERATURE WILL RECEIVE AN HONORARY DOCTOR OF LETTERS DEGREE FROM THE UNIVERSITY OF WESTERN ONTARIO DURING CONVOCATION CEREMONIES THIS FALL. One of the founders of the discipline of comparative literature in Canada, Kushner is being recognized for her contributions to scholarship and administration in the humanities.

PROFESSOR PHILIP ZELAZO OF PSYCHOLOGY IS THE RECIPIENT OF THE BOYD McCANDLESS YOUNG SCIENTIST AWARD FOR 1997, presented by the American Psychological Association in recognition of distinguished contributions by young investigators in developmental psychology.

### First Nations House

LILLIAN MCGREGOR, ELDER-IN-RESIDENCE AT FIRST NATIONS HOUSE, WAS AWARDED ONE OF THE FOUR OUTSTANDING ACHIEVEMENT AWARDS AT THE RECENT ONTARIO MINISTRY OF CITIZENSHIP VOLUNTEER AWARDS CEREMONY. According to the citation McGregor's knowledge of aboriginal culture and her ability to impart her wisdom and spirituality to others have made her a remarkable resource to her community and to Ontario society at large.

### Faculty of Medicine

MARIANNA BETRO, MANAGER OF THE FITZGERALD ACADEMY OF St. Michael's and Wellesley hospitals, has received the Faculty of Medicine's David Eberle Memorial Award. The award was established in memory of a former student by the medical graduates of the class of 1992 and is given to any member of staff or faculty who has demonstrated a unique contribution to the quality of the undergraduate medical experience.

PROFESSOR BOB BANNATYNE OF CLINICAL BIOCHEMISTRY WAS THE RECIPIENT OF JUNE OF A MICROBIOLOGY DEPARTMENT SPECIAL AWARD FOR TEACHING EXCELLENCE AND PROFESSOR TONY MAZZULLI OF

clinical biochemistry won the microbiology Outstanding Teaching Award for post-graduate teaching in medical microbiology for 1995-1996.

JUNE ENGEL, EDITOR OF *HEALTH NEWS*, HAS BEEN AWARDED THE 1996 DR. ENID JOHNSON MACLEOD AWARD OF THE FEDERATION OF MEDICAL WOMEN OF CANADA. Sponsored by Sandoz Canada Inc., the award recognizes either a physician or non-physician for work in the promotion of women's health education or research.

PROFESSOR IAN TAYLOR OF ANATOMY AND CELL BIOLOGY WAS GIVEN THE FACULTY OF MEDICINE'S 879 MEDICAL ALUMNI AWARD, ESTABLISHED BY THE CLASS OF 1989. The award is presented to a faculty member who has made an outstanding contribution to undergraduate medical education.

### Centre for Urban & Community Studies

PROFESSOR BARRY WELLMAN OF THE CENTRE FOR URBAN AND COMMUNITY STUDIES WAS ELECTED CHAIR OF THE COMMUNITY AND URBAN SOCIOLOGY SECTION OF THE AMERICAN SOCIOLOGICAL ASSOCIATION FOR A TWO-YEAR-TERM AT THE ASSOCIATION'S 1996 SPRING MEETING.

## IN BRIEF



### Television preview of U of T Day

U OF T DAY IS THE TOPIC OF A HALF-HOUR CABLE TELEVISION SHOW TUESDAY OCT. 15 AT 10 P.M. when a special episode of *University Life* previews the university's 10th annual open house, taking place Oct. 19. The program on U of T Day is one in a series of 24 episodes produced jointly by the Students' Administrative Council and Rogers Cable. *University Life* appears every Tuesday on Rogers Cable 10, beginning Oct. 1, from 10 to 10:30 p.m.

### Staff question cutbacks

THE U OF T STAFF ASSOCIATION IS HOLDING A SERIES OF MEETINGS ASKING MEMBERS, "Where do we go from here?" The meetings show there is "anger and confusion" over the 1.25 percent salary rollback and impending cuts to benefits, said UTSA president Mel Martin. Martin said many people do not understand why the cutbacks are happening in the first place. Asked to comment, Michael Finlayson, vice-president (administration and human resources), observed that "the exchange of 1.25 per cent of salary for three added days of paid holidays was the direct result of the funding cuts from the Common Sense Revolution." He added that "many administrative staff, especially those with school age children, will appreciate the two full weeks of paid vacation during the Christmas and new year period." The last two meetings in the series take place from noon to 2 p.m. on Oct. 2 at Robarts Library in Room 4049 and on Oct. 23 at Erindale College, South Building, Room 2068 B.

### Scott appointed counsel to UTFA

THE U OF T FACULTY ASSOCIATION HAS APPOINTED SUZIE SCOTT AS ITS COUNSEL. Scott has worked as the association's executive director for the past 11 years but is now concentrating on legal work in private practice, with UTFA as one of her clients. Professor Bill Graham, president of the association, said a review of the structure of UTFA will take place over the next couple of months before a decision is made whether or not to appoint a new executive director. The association serves faculty and librarians and has some 2,000 members.

### Beach heads Faculty of Music

PROFESSOR DAVID BEACH HAS BEEN APPOINTED DEAN OF THE FACULTY OF MUSIC FOR A SEVEN-YEAR TERM EFFECTIVE JULY 1. Beach, a successful musician and distinguished scholar, joined U of T after 22 years at the Eastman School of Music of the University of Rochester where in addition to his position on the faculty he served as chair of the department of music theory and as dean of graduate studies for the university. His primary area of research is tonal theory-analysis, particularly as related to the work of Austrian theorist Heinrich Schenker; his current research focuses on the instrumental music of Franz Schubert.

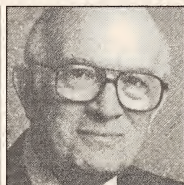
## IN MEMORIAM

### Rose Worked for Social Justice

PROFESSOR EMERITUS ALBERT ROSE OF THE FACULTY OF SOCIAL WORK DIED AUG. 9 OF CONGESTIVE HEART FAILURE AT THE AGE OF 78.

Born and raised in Toronto, Rose earned his undergraduate degree in political economy from U of T in 1939 and his PhD from the University of Illinois in 1942. Three years of wartime service in the Canadian Army were followed by a year as research director of the Toronto Welfare Council after which Rose was recruited by U of T and became its first dean of social work when the former school became a graduate faculty in 1972. After his retirement in 1983 he continued to give one or two courses a year until the spring of 1995, completing 49 years of teaching and research at U of T.

Rose also played an important role outside the university, offering his views and advice on issues ranging from housing policy and social welfare to metropolitan government, social work practice, public administration, gerontology and relations between Jews and the wider community. His reputation as a rigorous social analyst and a thoughtful social critic began to form when he contributed articles to *Canadian Welfare*, *The Canadian Forum* and *Food for Thought* in the 1940s and 1950s. Known as a welfare activist and a scholar, a father of public housing in Ontario and a forceful educator unencumbered by dogmatism, he was a popular conference



speaker and media commentator in the decades that followed. Last June, Rose received an honorary degree from Ryerson Polytechnic University, recognizing his scholarship and commitment to social issues and concerns.

Over the years various organizations

tried to recruit Rose, including the United Nations, but he preferred to stay at the university where he could pursue his teaching and research. He also declined overtures from three parties to run for Parliament.

A tribute written by his eldest son, Jeff, senior fellow in the Harrowston Program on Conflict Management and Negotiation at the Faculty of Law, says Rose was driven by his ancestral Jewish faith "which instilled in him a passion for social justice and a deep belief in the ethical responsibility of the individual member of the community." As well he was brought up with the belief that while learning was valuable "one's obligation was not only to understand the world, but also to make it a better place."

### U of T Advises on Future

THE ADVISORY PANEL ON FUTURE DIRECTIONS FOR POST-SECONDARY EDUCATION hits the road this week, travelling throughout the province to hear from administrators, specialty groups and the public. The panel has scheduled four meetings in Toronto on Oct. 3, 17, 23 and 24. A delegation from the university, led by President Robert Richmond, will present its case Oct. 17, addressing the three fundamental questions the panel is looking at:

What is the most appropriate way to share costs among students, the private sector and government? Are there better ways to promote and support co-operation between and among colleges, universities and the secondary school system? How can Ontario best meet the expected levels of demand for postsecondary education? The meeting starts at 9 a.m. at the St. James campus of George Brown College in Room 560 E.

UNIVERSITY OF TORONTO

## THE BULLETIN

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### FACT IS...



TWENTY-SEVEN PER CENT of faculty and staff members contributed to the University's United Way Campaign last year, not 12 per cent as stated in the Sept. 16 issue of *The Bulletin*.



# Enrolment Tailored to Market

BY SUZANNE SOTO

**R**ESPONDING TO CANADA'S shortage of skilled information technology professionals and of the looming demand for training, U of T is doubling its computer engineering enrolment.

The department of electrical and computer engineering has also introduced two new program options, to be taught with the department of computer science and aimed at meeting industry's demand for software engineers and communications specialists.

Professor Safwat Zaky, chair of electrical and computer engineering, said his department admitted 238 first-year applicants this academic year, 150 of whom are expected to specialize in computer engineering. That is almost twice the number of students admitted to computer engineering in 1995-96; the department will continue admitting roughly the same number, and proportion, of students in the years ahead.

"By 1999 we expect to have a total of about 1,100 undergraduate students in both electrical and computer engineering," Zaky said. "The department has already been judged as having the best programs in Canada. Now we will have the largest number of students."

Computer engineering's expansion was prompted by a number of key issues including a departmental review, very high student demand and industry's continuing need for trained technology professionals. In 1994 a panel of external reviewers ranked electrical and computer

engineering at U of T "as the best programs of their kind in Canada" and said the department merited a spot among the top 10 in North America. The panel also urged the university to consider enlarging both the department's faculty and student body.

In the spring of 1995 a group headed by Professor Alberto Leon-Garcia of electrical and computer engineering analysed student demand and found that of all of engineering specialties offered at U of T, computer engineering enjoyed the highest demand. The group also examined job market trends and found that the greatest industry growth was expected in software engineering and communications. Meanwhile the Information Technology Association of Canada estimates there is a shortfall of 12,000 information technology professionals in Canada, most of them in software-related industries.

Electrical engineering and computer engineering students share the same curriculum in their first two years, Zaky explained. In their third and fourth years they follow one program or the other and now they will be able to further specialize in either software or communications. A portion of the program will be taught by computer science professors.

Professor Wayne Enright, chair of computer science, said his department is searching for three additional faculty members to teach these courses. Not surprisingly the university is finding it difficult to recruit and keep faculty in this area mainly because of the fierce competition for

information technology professionals. "Industry is looking for the same people and other universities are thinking the same way we are," he said. Zaky said his department hopes to hire another 17 faculty members over the next five years.

The expanded program will also have to deal with an expected shortage of laboratory space, Zaky added. Two of the department's laboratories began offering evening hours this year but that will not be enough for the future.

## Highest Honor

- Continued from Page 1 -

for community organizations.

Arlette Lefebvre, a professor of psychiatry and a staff psychiatrist at the Hospital for Sick Children, co-founded Ability ONLINE, a computer network that enables ill and disabled people to communicate with others in similar circumstances.

Professor Emeritus Ezra Schabas of the Faculty of Music was recognized for having a profound influence on music in Canada. Author of the award-winning biography *Sir Ernest MacMillan: The Importance of Being Canadian*, Schabas has devoted a lifetime to nurturing young musicians.

William Arthur Wilkinson, a 1931 Faculty of Pharmacy graduate who is now retired, was honored for his pioneering work in the field of health care benefits.

## INNOVATORS



The U of T Alumni Association and the provost presented the first Northrop Frye Awards at a ceremony at Hart House Sept. 26. Cited for their innovative ways of linking teaching and research, three professors will now be known as Northrop Frye Scholars. They are (from left to right) Melba Cuddy-Keane of humanities at Scarborough, Carin Wittnich of surgery and Wilhelm Neumann of mechanical engineering. In addition Marsha Chandler, dean of the Faculty of Arts and Science, received a prize given to her division for its internationally acclaimed first-year seminars and second-year research opportunities program.

BARAK

## ASKING THOSE WHO MATTER

*A study on euthanasia seeks the opinions of the dying*

BY MICHAH RYNOR

**J**IM LAVERY IS ASKING TERMINALLY ILL PATIENTS WHY THEY want their doctors to help them die. A researcher at the Joint Centre for Bioethics he is in the middle of a qualitative study on euthanasia and assisted suicide and may be the first researcher to ask the opinions of the dying.

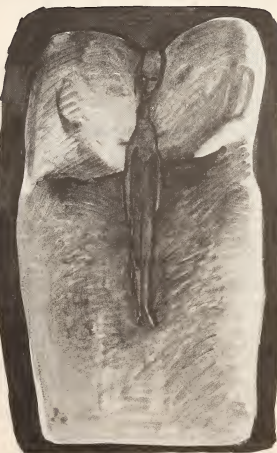
Normally research on this topic is based on the views of theologists, lawmakers and politicians. That troubles Lavery, who argues we're in danger of drafting laws based on arguments that may not reflect the actual experiences of terminally ill patients.

"It's hard to believe," says Lavery, "but there hasn't been much sociological analysis on this although researchers in Boston discovered that people in severe pain were requesting suicide assistance less often than patients who weren't in pain. Another study from the Netherlands found that cancer patients wanted assisted suicides not because they were suffering physically but because they feared either an undignified death or that they would become a burden to loved ones."

Lavery believes these results should make us sit up and ponder the real issues behind assisted suicide. For example, what does an "undignified death" mean to terminally ill patients? Does it reflect their belief that society doesn't have the support systems necessary to care for them? When the dying speak of their families "being burdened," are they really stating a lack of confidence in a nation's health care system? Lavery's study, the first of its kind, involves developing a scientific theory on how people arrive at their decisions to seek assistance. This model may eventually help policy-makers develop future laws and guidelines.

"What I'm saying is this — before we start jumping off these preconcived cliffs, let's take some time and allow researchers like me to develop a better understanding of this phenomenon. If we base legislation on the presumption that people in severe pain are the ones who want, or need, assisted-suicide legislation, and studies show that this may not be the case, then policies may be written on faulty presumptions."

The main problem with conducting a study of this nature is



that researchers must talk to patients who may have knowledge of other assisted suicides. As Lavery points out, people who have information pertaining to criminal acts don't line up to give detailed interviews. Even getting permission to proceed with this project meant Lavery had to present his proposal to seven separate research ethics panels.

"It's an extremely difficult area to do research in and as a result there's a very shallow understanding of this phenomenon, particularly from the perspective of the patients. I'm studying people who have HIV/AIDS (this research is funded by the Canadian Foundation for AIDS Research) because there is anecdotal evidence out there that assisted suicides take place in the HIV community. People who work in this area agree that we don't really know what is going on. We have all kinds of legal and philosophic opinions on this subject but we don't have much research to support these opinions."

This may not be the easiest subject to research but Professor Bernard Dickens of the Faculty of Law says there is definitely a growing interest on campus regarding assisted suicide and euthanasia. Dickens, who appeared before the Senate in 1994 on these subjects, teaches a course on medical jurisprudence. This year it's packed with future lawyers who may have to deal with the issue when they graduate. "It pleases me that students are signing up for this course in such high demand, because it indicates that these issues are now being opened to analysis rather than reacted to with knee-jerk opinions," he says. "This subject is coming out of the closet. The debate is getting healthier."

In fact law and the Joint Centre for Bioethics, of which Dickens is a member, aren't the only disciplines that could be called upon for opinions in the near future. "Sociology, psychology, anthropology, history and medical departments can all contribute," says Dickens, "because the university as a research institution can get some sense of both the facts and the values at stake. Universities have the benefit of detached analysis and perception that has to be a part of this discussion."

While the university tackles the ethical problems of assisted suicide it's an issue the Canadian legal system would prefer to sidestep, according to Lavery. "I think Canada is just waiting for this to go to the Supreme Court in the United States, have them make the big ruling and then we'll just follow suit. There's not a lot of desire out there to be the first."

GAIL GELNER



# HART HOUSE ACTIVITIES

**SPECIAL EVENTS** - Call 978-2452 or Hotline 978-4411  
 The Gallery Grill - respond with a fresh new menu for Fall, 98, Monday to Friday Lunch 11:30am-4pm, Sunday Brunch 10am-3pm. Reservations recommended 978-2445.

**Performance Art Series** - Artists for Change featuring Paul Dutton in a music-literary performance - October 3rd, 8pm, Music Room.  
**Library Committee Reading Series** - Celebrated writers including Michael Ondaatje, Linda Spalding and Anne Michaels read from John Berger's latest novel "To the Wedding" - October 6th, 8pm, Quadrangle.

**Formal Debate** - Featuring John Nunziata, MP on the resolution "Be It Resolved that Voting in the Federal Legislature Should Not Be Along Party Lines" - October 8th, 7:30pm, Debates Room.

**Hart House Farm** - Cider N Song - October 19th, Call 978-2447 for details/bookings.

**MUSIC** - Call 978-2452  
 From the Hart - Thursdays 8:30pm - Arbor Room October 3rd - Eileen McGann  
 Folk with Celtic Flavouring - October 10th - "Open Stage" - sign up at 8:30pm in Arbor Room  
 Jazz at Oscars - Fridays 8:30pm - Arbor Room October 4th - Peter Smith  
 Quartet  
 Sunday Concert Series - True North Brass - October 6th, 3pm - Great Hall

**ART** - Call 978-6389  
 The Justina M. Barniske Gallery - "a David Miller" and "Figures & Portraits," selections from the Hart House Permanent Collection. Show runs until October 3rd. Next Opening: Laurent Bouchard/sculptural paintings & Florin Hategan, prints. Meet the Artists October 10, 5-7pm in the Gallery.  
 The Arbor Room - Student Art Exhibit: Katie Lake, "Deindividuation." Show runs until October 9th.

**CLUBS** - Call 978-2452  
 All Hart House Clubs are now in full swing. For information on activities and events just call the number above.

**ATHLETICS** - Call 978-2447  
 Fall Athletics Guides can be picked up throughout Hart House Fall. 98 "Drop-in" Fitness Classes are frequent and free. Join in on the action 7 days a week.  
 Athletics Programme Registration continues in the Membership Services Office (978-2447).  
 Personal Strength/Fitness Consultations - Let one of our qualified trainers give you a program based on your personal goals and abilities. Book an appointment at the Membership Services Office.  
 Join in a Fun Run - Every Tuesday and Thursday at 12:10pm - meet at the Athletics Reception Desk for a 5K or 10K run, or join the Sunday Running Group each Sunday at 9am at the front doors of Hart House.

## HART HOUSE

UNIVERSITY OF TORONTO

# Stutterers Use Right Side of Brain

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they're in, they'll begin to stutter. Other people need a trigger and that trigger could very well be an event like losing a parent, moving to a new neighborhood as a child or falling ill.

"We now know that genetics plays an important role in all this. We've actually discovered that the brains of people who stutter 'scan' or search for complex words. Stutterers often report that they look for difficult words before they read something and researchers would just put this down as part of the psychological problem of stuttering. Now we can see that the mental process goes hand in hand with a biological process."

De Nil and his colleagues have been putting subjects through a series of exercises that show stutterers how to avoid tripping on words. The PET scan then observes the person before and after treatment. "We've found that after people are treated, they're able to shift their speech skills from the right hemisphere to the left," De Nil explained.

Yet, for a number of patients, this progress begins to disappear after a few months. De Nil thinks it's simply too exhausting to concentrate on new vocal techniques. "It's like being asked to talk with a Texas accent. After a while, you get tired of doing it and just return to what's comfortable."

# STAR TRAILS IN SKY



ROBERT CARBONSON

Not your usual snapshot but a nine-hour time exposure of the heavens above U of T's southern observatory - the dark shape in the left foreground. This year is the silver anniversary of "first light" in August 1971 at the Helen Sawyer Hogg Telescope at Las Campanas in Chile where in 1987 resident observer Ian Sbelton discovered the brightest supernova seen since 1604. To mark the 25th anniversary the astronomy department held a workshop Sept. 6-7 celebrating the scientific advances achieved at the Chile facility.

# Staff Centre Opens

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that are constantly changing. "We're going through massive technological change with the introduction of so many new computer systems," said Jackie Baker, manager (staff development, human resources). "It's very difficult for staff to anticipate what skills will be

needed in the future. We're here to help employees keep up with the training needed to increase their employability in order to enhance their career potential."

The Staff Development Resource Centre at 946-3061 is located in the North Borden Building in Room 238K at 563 Spadina Ave.

# FAST FOOD VS. FINE FOOD NOW YOU CAN HAVE BOTH!

## CAMPUS à la Carte introduces you to a more tasteful eating alternative

We know that you crave food that's finer than what you'll find at the usual fast food outlets. But your busy campus schedule seldom allows time to get to good restaurants. We've solved that problem for you.

Welcome to the UofT's freshest and finest new food outlet, Campus à la Carte. At last! A place where you can get meals, sandwiches, salads and sweets to suit your more sophisticated palate. Food that's

fresher and finer yet still fast. And affordable.

Campus à la Carte is part of the rich tradition of à la Carte Kitchen Inc., one of Toronto's most respected catering companies. So you know you'll be

enjoying superior quality meals prepared by people who care about the food they provide. Take advantage of these grand opening specials and introduce yourself to a more acceptable eating alternative.



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 Present coupon before ordering. Limit one coupon per customer. Valid until October 31, 1996.



**SAVE \$1**  
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## WAY TO GROW



Offices on the downtown campus have been restocked with greenery after the annual plant sale in aid of the Varsity women's volleyball team Sept. 24 and 25. Vendors included team member Suzanne Majen (left), a third-year engineering student, who did her best to encourage the spending habits of plant lovers. The sale generated about \$1,500 for the team.

## New Name for Scarborough

SCARBOROUGH CAMPUS IS NO more. The eastern part of U of T — formerly University of Toronto, Scarborough Campus or more often just Scarborough College — will henceforth be known as University of Toronto at Scarborough.

"The reason [for the name change] is to ensure that we are recognized as a university and not a community college," Principal Paul

Thompson noted. "We still get phone calls asking when our hair-dressing course begins. And more specifically it will ensure that we are clearly recognized as a part of the University of Toronto."

The name issue is not a new one for U of T's satellite campuses, which have cultivated individual identities while trying to make clear they are part of Canada's largest university.

Erindale College in Mississauga, for reasons similar to Scarborough's, is also expected to finalize a modified name soon.

Thompson said that the tendency of people to shorten the official University of Toronto, Scarborough Campus, to just Scarborough Campus dulled "one of the campus's strongest student recruitment tools: identification as part of U of T."

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## LETTERS



### WE ARE DIVERSE

In his letter to *The Bulletin* regarding the recent visit to South Africa of a team from this centre, George Bancroft asks two questions and makes two statements (Multiracial advice, Sept. 16). His first question is: "Are there any blacks on the U of T team?" He goes on to identify a professor on our team "who, by his name, may be of Indian (Asian) origin" as a possible exception to his generalization that "all of our U of T experts seem to be white." As it turns out this individual, mentioned by Professor Bancroft as a South African, is mentioned in the original article as being from the University of Dar es Salaam and is a black Tanzanian. He also asks, "Has any of them lived in a black/white multiracial community?" Without going into detail on every member of the team, the answer is yes.

Professor Bancroft suggests that there are a number of other (named) colleagues within the university who could very well have had insights to contribute; and he suggests that the constitution of our little University of Toronto team reflects "our colonial mentality and 18th-century (sic!) myopia." On the first, I totally agree that the colleagues to which he refers could have made a contribution to our work but we were asked to select individuals with strong experience in different sub-fields of the urban planning area. The team that was selected consisted of four individuals with an international reputation in this field and many years of previous experience working directly in urban policy. In all but

one case members of the team had worked with ANC groups in South Africa on several earlier occasions. As for our presumed "colonial mentality" I cannot understand this point very well since we were invited by the office of President Mandela in South Africa.

RICHARD STREN  
CENTRE FOR URBAN AND  
COMMUNITY STUDIES

### A SURE BET

I write with what I hope will be seen as a useful and constructive suggestion for the university to solve its netting financial worries. In the Sept. 3 issue of the *Varsity* Janice Oliver, assistant vice-president (operations and services), was quoted as saying, "With shrinking revenues now, I think that the university has to look at other ways of generating revenue." Then the president weighed in, remarking in the same issue of the *Varsity*: "We should do everything possible to expand our sources of revenue." Instead the university's fund raisers (of which there seems to be a lamentably large number) piddling around with schemes of corporate aids for campus washrooms, accepting questionable funds from cigarette companies or largesse from the Brazilian Ball, why not expand our horizons and deal with the problem in one fell swoop?

My proposal is to apply for a licence to operate a casino. I would further suggest that all faculty who do not have external research funding be required to work at the casino a certain number of hours per month for no wages. This

would ensure that all faculty are, at all times, bringing much needed funds into the university. There would be many secondary benefits too. Since under the Harris regime there are fewer and fewer social services, students in my faculty could do field placements at the campus casino; after all, people who are compulsive gamblers undoubtedly have many unmet psychosocial needs. As well the university would no longer have a need for the highly paid help whose task in life it is to raise funds. We could save a bundle.

ALLAN IRVING  
FACULTY OF SOCIAL WORK

### MENTION ALL CANDIDATES

I am defending my EdD thesis Sept. 30 and have searched in vain for a mention of my oral exam in *The Bulletin*. The *OISE News*, published by OISE until the merger with U of T earlier this year, used to list all EdD and PhD candidates who were having their final oral examination. *The Bulletin*, I have learned, only lists PhD orals. That is wrong, I think. While it is fine to distinguish between degrees because of their theoretical and practical orientations, both should be acknowledged.

If you printed a list of recent and future EdD orals, I am sure all EdD students would feel that they too were included in the research community.

OSCAR CORREIA  
OISE/UT

## ON THE OTHER HAND

BY NICHOLAS PASHLEY

## REASONS TO REJOICE

BACK IN THE SADDLE AGAIN. WE AT *THE BULLETIN* ARE AWARE that some of you pass your summers elsewhere and we'd like to fill you in on what you missed this year. One thing you missed was the Olympics. Yes, I know that all this happened in Atlanta but around here we were very aware that it might have been the Toronto Olympics.

What Toronto did get this summer was the annual conference of the American Psychological Association, which is a bit like the Olympics without the expense of building a velodrome. For that matter psychologists are happy to stay in hotels, so we didn't even have to build a psychologists' village.

What the APA banquet does not attract, sadly, is big television contracts and millions of spectators. When you watch that people travel great distances and pay extortionist sums of money to watch Olympic table tennis and weightlifting, you'd predict an audience for psychology. Yet far from encouraging the public the APA actively discourages the masses from attending its sessions. Who does their marketing?

Denied access ourselves we take what we can from the newspapers' coverage of the conference. I am indebted to *The Globe and Mail* for informing us of the University of Iowa's Karen Sched, who has discovered that young people who listen to heavy metal are more likely to commit suicide than fans of other kinds of music, which makes sense.

What I found interesting about Ms Sched's study is that she has been able to quantify suicidal tendencies using something called the Reasons for Living Inventory Test. I, for one, would like to know more about this test. We're all under a lot of stress at this time of year. Down at your friendly campus bookstore we tend to hover between the suicidal and the homicidal in September. Never more so than this year as we grappled with our new computer system. This system, popularly known as The Beast, has been declared The Most Flagrant Misuse of Electricity since the Lava Lamp by a team of independent observers.

So with all this stress, why do we go on? Why not end it all! Perhaps the biggest reason to carry on is curiosity. The surest sign of desperation — and I bet this appears in the Reasons for Living Inventory Test — is ceasing to care how the Brian Mulroney libel trial unfolds. And don't you want to know who wins the Ontario Liberal leadership race? (Okay, maybe that's a bad example.) Will John Snobelen succeed in scaling back the Ontario educational system to the point where no one is more educated than he? (Or is it him? See? It's working already.)

There are so many reasons to go on living. Look at all the promising party opportunities on the way. Next year, for instance, we can expect a rash of John Cabot parties, celebrating the 500th anniversary of that gentleman's famous voyage. Nineteen ninety-nine marks the 600th anniversary of the abdication of Richard II. And who doesn't want to be around for 1026, the centenary of the birth of existentialism?

So much to live for. The new beautified St. George Street is open again and *The Bulletin's* back to its regular publishing schedule. Gaudeamus!

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## BOOKS



The following are books by U of T staff. Where there is multiple authorship or editorship, staff are indicated with an asterisk.

### Catching up

Germany in the Age of Kaiser Wilhelm II, by James Retallack (St. Martin's Press; 133 pages; \$15.99). In this study a dual approach is used to introduce readers to Wilhelmine Germany (1888-1918). It surveys social, economic, political, cultural and diplomatic developments in an age of tumultuous upheaval. It also explains why historians have so often reversed the interpretive "switches," guiding research on this period. By highlighting the breadth of historical change under Wilhelm II and the evolution of opposing view points about its significance the book provides access to an epoch — and a debate — characterized more by controversy than consensus.

The God Within: Kant, Schelling and Historicity, by Emil Fackenheim (University of Toronto Press; 252 pages; \$75). For 19th-century thinkers the central problem of religious consciousness in the modern West was the tension between prevailing concepts of individual autonomy

and the traditional Judeo-Christian claim for divine revelation. This book brings together 10 of the author's essays on the German idealists who struggled to resolve this tension.

The Peter J. Braun Russian Mennonite Archive, 1803-1920: A Research Guide, by Ingrid I. Epp and Harvey L. Dyck (University of Toronto Press; 216 pages; \$150). By far the most extensive collection of in-group Russian Mennonite sources surviving the Imperial period, the archive spans a wide range of subjects concerning the largest Mennonite community in Russia. The collection consists of more than 130,000 pages of documents, organized in some 3,000 chronologically arranged files.

The Politics of Power: Ontario Hydro and Its Government, 1906-1995, by Neil B. Freeman (University of Toronto Press; 250 pages; \$55 cloth, \$18.95 paper). Who owns Ontario Hydro? How will the issue of ownership affect the Harris government's goal of privatization of the utility? How will stakeholders respond to the privatization advisory committee recommendations? In this comprehensive look at the character

and role of this important utility the book provides answers and context to these and other questions.

Quality of Life in Health Promotion and Rehabilitation: Conceptual Approaches, Issues and Applications, edited by Rebecca Renwick\*, Ivan Brown\* and Mark Nagler (Sage Publications; 437 pages; \$55 US cloth, \$24.95 US paper). This volume presents quality of life as an important focus for the fields of health promotion and rehabilitation and emphasizes the construct as the common ground that closely links the two fields. Following an introduction to key themes and concepts, contributors review the conceptual basis for discussing quality of life.

Marriage, Family and Law in Medieval Europe: Collected Studies, by Michael M. Sheehan, edited by James K. Farge (University of Toronto Press; 330 pages; \$45). This collection of 16 articles, published over 30 years, draws on research from court records and wills relating to the definition and codification of Christian marriage and the family and relating to the social and popular history of religion and the history of sexuality and sexual behavior.

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### Tuesday, November 5

**Have You Tried to Quit SMOKING?** The staff of the Occupational Health Service will share smoking cessation techniques that may help you succeed *this* time.

### Wednesday, December 4

**Working With Your Child's School:** Dealing with your child's school can be a very challenging experience. This panel discussion will focus on strategies for home-school communication to ensure that your child gets the most out of the education system.

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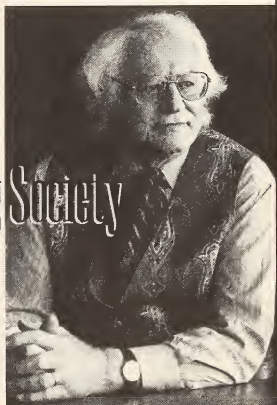
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## The Bulletin

invites readers to submit information regarding awards and honors as well as death notices of staff and faculty. Please include as much background information as possible and in the case of obituaries, a CV is especially welcome.

Please send, deliver or fax the information to:

KARINA DAHLIN  
21 King's College Circle  
fax, 978-1632.



# EVENTS



## LECTURES

### Ethical Values and the Literary Imagination in the Later Ancient World.

**FRIDAY, SEPTEMBER 27**  
Prof. Brian Stock, Centre for Medieval Studies, J.R. O'Donnell memorial lecture. Auditorium, Alumni Hall, St. Michael's College, 121 St. Joseph St. 4:10 p.m.

### Women's Centenary Lecture.

**WEDNESDAY, OCTOBER 2**  
Prof. Jill Kerr Conway, Massachusetts Institute of Technology, and Natalie Zemon Davis, Northrop Frye professor, in celebration of 25 years of women's studies at U of T. George Ignatieff Theatre, 15 Devonshire Pl. 7 p.m.

### Reformation and Collective Memory in English Urban Society, 1500-1640.

**THURSDAY, OCTOBER 3**  
Prof. Robert Titterton, Concordia University. Senior Common Room, Victoria College. 4 p.m. *GRAS and Toronto Renaissance & Reformation Collection*

### A Chemical View of Evolution.

**FRIDAY, OCTOBER 4**  
Prof. R.J.P. Williams, University of Oxford. 158 Lash Miller Chemical Laboratories. 3:30 p.m. *Chemistry and Physics*

### FDI Policy.

**MONDAY, OCTOBER 7**  
Alan Nymark, Industry Canada. Conference Room, Centre for International Studies, 5th floor, 170 Bloor St. W. 3 to 5 p.m. *CIS*

### The Living Enlightenment.

**MONDAY, OCTOBER 7**  
Em. Peter Gay, Yale University; Tanner Lectures on Human Values. 140 University College. 5 p.m.

### A Chorus of Voices: Mothers in Schools.

**MONDAY, OCTOBER 7**  
Prof. Alison Griffiths, York University; Popular Feminism lecture, 4-411 Ontario Institute for Studies in Education of the University of Toronto, 252 Bloor St. W. 8 p.m. *Women's Studies in Education, OISE/UT*

### Religious Liberty: Its Theological Roots and Its Theological Development.

**TUESDAY, OCTOBER 8 AND WEDNESDAY, OCTOBER 9**  
The Fundamental Battle of Vatican II, Oct. 8; Crucifixes: The Experience of Religious Liberty in the U.S., Oct. 9; John Noonan lectures. George Ignatieff Theatre, 15 Devonshire Pl. 8 p.m. *Trinity and St. Thomas' Anglican Church*

### New Works.

**WEDNESDAY, OCTOBER 9**  
Uta Barth, artist, Los Angeles. Room 103, 230 College St. 7 p.m. *Architecture & Landscape Architecture*

### ASEAN at the Dawn of the 21st Century.

**THURSDAY, OCTOBER 10**  
Prof. Chin Kin Wah, National University of Singapore. Combination Room, Trinity College. 4:30 to 6 p.m. *CIS*

### The Experiments That (Almost) Proved Dalton's Atomic theory.

**WEDNESDAY, OCTOBER 16**  
Prof. Mel Usselman, University of Western Ontario; in conjunction with the 1996 historic-scientific experiment. 323 Victoria College. 4 p.m. *IHPST*

### Discovering the Insulin Documents.

**WEDNESDAY, OCTOBER 16**  
Prof. Michael Bliss, history. Thomas Fisher Rare Book Library. 8 p.m. *Friends of the Thomas Fisher Rare Book Library*

## COLLOQUA

### Social Construction.

**WEDNESDAY, OCTOBER 2**  
University Professor Ian Hacking, Institute for the History & Philosophy of Science & Technology and philosophy. 323 Victoria College. 4 p.m. *IHPST*

### Earthquake Predictability.

**THURSDAY, OCTOBER 3**  
Prof. Bernard Minster, SCRIPPS Institute of Oceanography, La Jolla. 10:00 McLennan Physical Laboratories. 4:10 p.m. *Physics*

### Quantum Information and Quantum Computation.

**THURSDAY, OCTOBER 10**  
Prof. John Preskill, Caltech. 102 McLennan Physical Laboratories. 4:10 p.m. *Physics*



## SEMINARS

### Physical and Health Education in Ontario: Where Is It Going?

**MONDAY, SEPTEMBER 30**  
Prof. Andy Anderson, OISE/UT. 330 Benson Building. 3:30 to 5:30 p.m. *Physical & Health Education*

### Coping with Academic Stress: Effective Strategies for Learning.

**TUESDAY, OCTOBER 1**  
Nellie Perret, second of five in Under Pressure: Realities of Emotional and Academic Life series. Croft Chapter House, University College. 12:10 to 1 p.m. *Counselling & Learning Skills Service*

### Biogeographic Patterns in Fossil Taxa: Geological Processes and Analytical Methods.

**WEDNESDAY, OCTOBER 2**  
Prof. Bruce Lieberman, Harvard University. 107 Ramsay Wright Zoological Laboratories. Noon to 1 p.m. *Zoology*

### Emotional and Legal Issues re: Sexual Assault.

**WEDNESDAY, OCTOBER 2**  
Patricia McGillicuddy, third of five in Under Pressure: Realities of Emotional and Academic Life series. Croft Chapter House, University College. 12:10 to 1 p.m. *Counselling & Learning Skills Service*

### Advanced Human Computer Interface Design for Process Control Systems.

**THURSDAY, OCTOBER 3**  
Prof. Kim Vicente, mechanical and industrial engineering. 235 Medical Sciences Building. 11 a.m. *KMDI*

### Self-Esteem and Depression.

**THURSDAY, OCTOBER 3**  
Sarita Sahay, fourth of five in Under Pressure: Realities of Emotional and Academic Life series. Croft Chapter House, University College. 12:10 to 1 p.m. *Counselling & Learning Skills Service*

### Five Years at MOEF: Some Lessons Learned.

**THURSDAY, OCTOBER 3**  
Prof. Peter Victor, York University. 2093 Earth Sciences Centre. 4 p.m. *IES*

### What Does Melatonin Really Do? Recent Advances in Melatonin Research.

**THURSDAY, OCTOBER 3**  
Prof. Greg Brown, psychiatrist. 3231 Medical Sciences Building. 4 p.m. *Physiology*

### Finding Forms for Feelings: Using Writing, Art and Photographs as Tools for Expression.

**FRIDAY, OCTOBER 4**  
Ronno Bloom, final in Under Pressure: Realities of Emotional and Academic Life series. Croft Chapter House, University College. 12:10 to 1 p.m. *Counselling & Learning Skills Service*

### A Unified Approach to the Scale Up of Fluidized Multiphase Reactors.

**WEDNESDAY, OCTOBER 9**  
R. (Kish) Krishna, University of Amsterdam. 116 Walbridge Building. 12:30 p.m. *Chemical Engineering & Applied Chemistry*

### Women and Breast Cancer.

**WEDNESDAY, OCTOBER 9**  
Diet and Breast Cancer, Prof. Norman Boyd, Faculty of Medicine; Screening for Breast Cancer: Who, What, Why, When and Where? Prof. Nancy Wadden, Faculty of Medicine; New Advances in Breast Cancer Treatment, Prof. Paul Goss, Faculty of Medicine. Main Lecture Theatre, Toronto Hospital (General Division), 200 Elizabeth St. 4 to 6:30 p.m.

### Human-Centred Design.

**THURSDAY, OCTOBER 10**  
Prof. Peter Timmerman, IFIAS. 2357 Medical Sciences Building. 11 a.m. to 1 p.m. *KMDI*

### "It's Not because You Like It Any Better": Residents' Reappraisal of a Landfill Site.

**THURSDAY, OCTOBER 10**  
Prof. Martin Taylor, McMaster University. Main conference room, 223 College St. 4 p.m. *IES and Gage Occupational & Environmental Health Unit*

### Collectivization in Ukraine.

**THURSDAY, OCTOBER 10**  
Prof. Valeri Vasiliev, Vinnitsa Pedagogical Institute, Ukraine; SERAP workshop. 14352 Roberts Library. 7 p.m. *CREES*

### Fetal Maternal Nutrition during Pregnancy.

**FRIDAY, OCTOBER 11**  
Prof. Em. Joseph Hoot, University of Louvain, Bruxelles. 221 Medical Sciences Building. Noon. *Physiology*

### The Non-Homeric Nature of the Trojan War in Early Greek Art.

**FRIDAY, OCTOBER 11**  
Prof. Jonathan Burgess, classics. 256 University College. 3:10 p.m. *Classics*

### Fashion, Fetish and the History of the Body.

**TUESDAY, OCTOBER 15**  
Valerie Steele, Fashion Institute of Technology, New York; Hannah seminar for the history of medicine. Seminar Room, 88 College St. 4 to 6 p.m. *History of Medicine*

### A New Equation of State for Hydrocarbons and Polymers.

**WEDNESDAY, OCTOBER 16**  
Prof. Carol Hall, North Carolina State University. 116 Walbridge Building. 12:30 p.m. *Chemical Engineering & Applied Chemistry*



## MEETINGS & CONFERENCES

### Translation & Globalization. WEDNESDAY, OCTOBER 2

**SUNDAY, OCTOBER 6**  
Workshops and conference. Victoria College.

### WEDNESDAY, OCTOBER 2 AND THURSDAY, OCTOBER 3

Workshops presented each day. Workshop 1: The Sociocognitive Dimensions of Translation. 205 Northrop Frye Hall. 4 to 6 p.m. Atelier 2: Traduction/Représentation/Identité. 321 Park Library. 6 to 8 p.m. Workshop 3: Global Management: The Pragmatics of Communication in Multilingual and Multicultural Environments (Oct. 2: communication in management; Oct. 3: the concept of joint venture in Asia considered as 'laboratories of intercultural management'). 119 Emmanuel College. 8 to 10 p.m.

### FRIDAY, OCTOBER 4 TO

**SUNDAY, OCTOBER 6**  
Conference. Sessions in Alumni Hall, 73 Queen's Park Cres. E.

### FRIDAY, OCTOBER 4

Traduction: les fondements d'une compétence transculturelle, Georges Vignaux, Centre National de la Recherche Scientifique, Paris; Constructing a global memory, Roger Simon, OISE/UT; The computer global culture, Brenda Danet, Hebrew University of Jerusalem; Translating studies and translation theories in China, Xie Tianzhen, International Studies University, Shanghai. 2 to 5:30 p.m.

### SATURDAY, OCTOBER 5

Translating expert discourse: the pre-eminence of modalization, Daniel Simoni, York University; Innovation, tradition and communication: the cultural dynamics of Indonesian society, Benny Hoedoro Hood, Universitas Indonesia, Jakarta. 9 to 10:30 a.m.

Traduction et représentation identitaire: l'identité américaine du Québec, Annie Brisset, Université d'Ottawa; Mondialisation, déglobalisation, Pascal Jin, Université d'Ottawa; Une structure conceptuelle unifiée des verbes causatifs/inchoatifs en français et en anglais, Anne-Marie Brousseau, University of Toronto. 10:45 a.m. to 12:30 p.m.

Semiotic diversity and technological proximity. Lisa Block de Bary, Universidad de la República, Montevideo; Towards a semiotic of the cultural other, Winfried Noth, University of Kassel; Translating otherness and the emergence of the global "anthropos", Terry Cochran, University of Montreal; Synthesizing the map: territorial expansion through selective translation, Erss Ding, Suzhou University; University of Beijing. 2 to 4:15 p.m.

Translation and the problem of cross-cultural understanding: the case of Indian art and culture, Kalyan Kumar Chakravarty, Indian Gandhi National Museum of New Delhi; Bhopal: How Japanese language influences Japanese Management, Jean-Gérard Nay, Relations Internationales, Eif-Aquitaine, Paris; Cultural otherness and the pragmatics of globalization, Oldrich Kral, Charles University, Prague; Lo spot, un look and le MacPoulet, Anne Urbancic, University of Toronto. 4:30 to 7 p.m.

### SUNDAY, OCTOBER 6

"Rotten English": untranslatability as identity, Charles Lock, University of Copenhagen; Translating "denegation": deconstruction and globalization, Russell Kline, University of Toronto; Translating, transposing and transfiguring myth: the case of Elektra and "Anna O", Heather Gill Scott, University of Toronto; Early translations of Emily Dickinson and

other American poets into Yiddish and their role in modern Hebrew poetry, Dor Aben-David, New York University. 10 a.m. to 12:30 p.m.  
Concluding session/science de clôture. 2 to 4 p.m.

### Planning & Budget Committee

**WEDNESDAY, OCTOBER 2**  
Council Chamber, Simcoe Hall. 4 p.m.

### Academic Board.

**THURSDAY, OCTOBER 3**  
Council Chamber, Simcoe Hall. 4:15 p.m.

### Taxonomic Database Working Group (TDWG-96).

**SATURDAY, OCTOBER 12 TO**

**MONDAY, OCTOBER 14**

An international meeting of biodiversity and informatics specialists concerned with exploring ideas on standardization and collaboration with taxonomic databases in all biological disciplines. Koffler Institute for Pharmacy Management and Royal Ontario Museum. Information: 866-503-02 or URL <http://www.com.on.ca/cbiff/tbwg96.htm>

### Business Board.

**TUESDAY, OCTOBER 15**  
Council Chamber, Simcoe Hall. 5 p.m.

## MUSIC

### FACULTY OF MUSIC EDWARD JOHNSON BUILDING

#### Thursday Noon Series.

**THURSDAY, OCTOBER 3**  
Looms and Lullabies; Gaynor Jones, commentator with performers from the graduate department. Walter Hall. 12:10 p.m.

### Music by Numbers: A Chamber Music Benefit Concert.

**FRIDAY, OCTOBER 4**  
Faculty, alumni and students perform three chamber masterworks; proceeds to benefit young performers at the Faculty of Music. Walter Hall. 8 p.m. Tickets \$15, students and seniors \$10.

### Women and Music in Cross-Cultural Perspective.

**TUESDAY, OCTOBER 8**  
Prof. Ellen Koskoff, Eastman School of Music; University of Rochester; informal discussion. Room 216. 9:30 to 11 a.m.

### The Jazz Series.

**WEDNESDAY, OCTOBER 9 AND OCTOBER 16**  
Small Jazz Ensembles. Walter Hall. 8 p.m.

### I Solisti Aquilani.

**FRIDAY, OCTOBER 11**  
Vittorio Antonelli, director; presented by the Canadian Centre for Italian Language & Culture in collaboration with Istituto Italiano di Cultura. Walter Hall. Information: 789-4970

### Wind Symphony & Concert Band.

**SATURDAY, OCTOBER 12**  
Stephen Chennette and Cameron Walter, conductors. MacMillan Theatre. 8 p.m. Tickets \$5.

### HART HOUSE

#### Performance Art Series.

**THURSDAY, OCTOBER 3**  
Performers for Change, featuring Paul Dutton in a music-to-lyric performance. Music Room. 8 p.m.

### From the Hart Concert Series.

**THURSDAY, OCTOBER 3**  
Eileen McGinn, folk with Celtic flavoring. Arbor Room. 8:30 p.m.

**THURSDAY, OCTOBER 10**  
Open Stage! sign up. Arbor Room. 8:30 p.m.



## EVENTS

### Jazz at Oscar's.

FRIDAY, OCTOBER 4  
Peet Smith Quartet. Aubur Room. 8:30 p.m.

### Sunday Concert Series.

SUNDAY, OCTOBER 6  
True North Brass. Great Hall. 3 p.m.

### OISE/UT

Yaroslav Senyshyn.

THURSDAY, OCTOBER 10

Special piano concert in celebration of the new Ontario Institute for Studies in Education of the University of Toronto. Auditorium, 371 Bloor St. W. 8 p.m. Tickets \$10. Reservations: 926-4726.



### PLAYS & READINGS

#### Twelfth Night.

WEDNESDAYS TO SUNDAYS,  
OCTOBER 2 TO OCTOBER 13  
By William Shakespeare; Martin Hunter, director. Graduate Centre for Study of Drama production. Studio Theatre, 4 Glen Morris St. Performances at 8 p.m. except Sunday 3 p.m. Tickets \$15, students and seniors \$10. Reservations: 978-7986.



### EXHIBITIONS

JUSTINA M. BARNICKE  
GALLERY  
HART HOUSE

TO OCTOBER 3

Ca. David Milne.

From the Hart House Permanent Collection. East Gallery.

#### Figures & Portraits.

David Milne, paintings from the Hart House Permanent Collection. West Gallery. Gallery hours: Monday to Friday, 11 a.m. to 5 p.m.; Saturday, 1 to 4 p.m.

### UNIVERSITY OF TORONTO AT SCARBOROUGH

The Difference between Nothing  
and the Smallest Thing.

TO OCTOBER 6

Albert Ka Hing Liu, paintings. The Gallery. Gallery hours: Monday to Friday, 9 a.m. to 5 p.m.

### NEWMAN CENTRE

York Artists' Guild.

TO OCTOBER 6

Oils, acrylics, water colors and sculpture.

### Toronto Photographers.

OCTOBER 6 TO NOVEMBER 3  
A number of Toronto photographers will be featured. Ground floor. Hours: Monday to Friday, 9 a.m. to 5 p.m.

### SCHOOL OF ARCHITECTURE & LANDSCAPE ARCHITECTURE

Chairs by Students #3

TO OCTOBER 18

Third biannual exhibitions by students for the fourth-year elective course. SALA Gallery, 230 College St. Hours: Monday to Friday, 9 a.m. to 5 p.m.

### THOMAS FISHER RARE

BOOK LIBRARY

The Discovery of Insulin at the

University of Toronto

TO DECEMBER 20

The story of the discovery of insulin from

its genesis in October 1920 to the awarding of the Nobel Prize in physiology and medicine to F. G. Banting and J.J.R. Macleod in 1923. Hours: Monday to Friday, 9 a.m. to 5 p.m.



### MISCELLANY

Lunch-Time Discussions with  
Members of the University  
Community.

TUESDAY, OCTOBER 3

University Professor Emerita Ursula Frankling, first of four. An opportunity to sit with respected members of the university community to talk with them about their hopes, dreams, aspirations. International Students Centre. 12:15 to 1:15 p.m. Campus Chaplains Association.

#### New Beginnings:

An Orientation for Women.

WEDNESDAY, OCTOBER 2

For women who have come to university after some time away from formal education to meet other women and get comfortable at U of T; workshops. Rigby Room, St. Hilda's College. Noon to 2 p.m. Information: 978-3993.

#### Conversation on the

Concept Forgiveness.

WEDNESDAY, OCTOBER 2

George Schner, Regis College; David Demson, Emmanuel College; Ellen Leonard, St. Michael's College; Iain Nicol, Knox College; Abraham Khan, Trinity College. Divinity Common Room, Trinity College. 2 to 4 p.m. Divinity Class, Trinity.

#### Woodsworth College Book Sale.

THURSDAY, OCTOBER 3

TO OCTOBER 5.

Kruger Hall, 119 St. George St. Thursday, 10 a.m. to 8 p.m. (admission \$2, free with student card); Friday, 10 a.m. to 6 p.m.; Saturday, 10 a.m. to 4 p.m. Alumni Association, Woodsworth.

#### Hannah Scholarships,

Fellowships and Grants.

THURSDAY, OCTOBER 3

Lunch-time workshop with J.T.H. Connor and Sheila Snelgrove of the Hannah Institute for the History of Medicine to answer questions about submitting a good application. 303 Victoria College. 11 a.m. to 12:45 p.m.

#### Order of Christian Funerals.

SATURDAY, OCTOBER 5

Second of four workshops on Liturgy & Pastoral Ministry. Elliott MacGuigan Hall, Regis College, 67 St. Nicholas St. Fee: \$40 per session. Information: 922-5474.



### DEADLINES

Please note that information for Events listings must be received in writing at The Bulletin office, 21 King's College Circle, by the following times:

Issue of October 15, for events taking place Oct. 15 to 28: MONDAY, SEPTEMBER 30.

Issue of October 28, for events taking place Oct. 28 to Nov. 11: TUESDAY,

OCTOBER 15.

### THE FRIENDS OF THE LIBRARY, TRINITY COLLEGE

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Friday, October 18, 7 - 10 pm  
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Sunday, October 20, noon - 9 pm

Monday, October 21, 10 am - 9 pm

Tuesday, October 22, 10 am - 9 pm  
(Free Admission)

(Cash - Cheque - MasterCard - VISA accepted)

Seeley Hall, Main Building

6 Hoskin Avenue, near Museum Subway Stn.

For further information call 978-6750



### Wiegand Foundation Lecture Series

## ISLAM IN INTERACTION

*As in a Distant Mirror: Dialogue and Dissent  
Between Islam and Christianity*

Josef van Ess

University of Tuebingen, Germany

Tuesday, October 10, 1996 ~ 8:00 pm

### Prospects for a Religious Anthropology

Mohammed Arkoun

University of Paris, France

Tuesday, October 24, 1996 ~ 8:00 pm

EARTH SCIENCES AUDITORIUM ~ 33 WILLCOCKS STREET  
(Corner of Willcocks and Huron Streets)

Free Public Lectures - For Further Information Call: (416) 978-7253

The Wiegand Foundation Lecture Series is offered by the Faculty of Arts and Science - University of Toronto

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## ACCOMMODATION RENTALS AVAILABLE — METRO & AREA —

**Sabbatical rental** — 4-5 months, quiet cul-de-sac, ravine. Fully furnished detached house; 2 bedrooms, 2 bathrooms, den, parking, TTC. Close downtown. 7 appliances. No pets, non-smokers, suit couples. November 1 approximately \$1,200+ 755-0540.

**Fully furnished, renovated, three-storey home** in great downtown neighbourhood (Danforth and Logan), close to subway and DVP. Available from January 1 to August 31, 1997. \$1,800/month including all utilities. Call 466-2425.

**Steps to U of T, bookstores, cafes.** January 1997 for 4-6 months. Furnished 3-bedroom, 2-bath, renovated, 3-storey house. Delightful kitchen for cooking/eating. 2 decks, quiet street, parking. Non-smokers. \$1,800 + utilities. (416) 920-2705.

**High Park area, 3-bedroom condo, 2 baths, great facilities, near lake, High Park, gym, pool, parking, air conditioning, furnished or semi.** Suitable for incoming professor(s). Available beginning November/December. \$1,175 inclusive (416) 604-2150.

**Professor's house for rent.** Seven months beginning January 1, 1997. Eglinton/Avenue Road. Nicely furnished, 4 bedrooms, 2 bathrooms, fireplace, deck. Quiet residential street, excellent schools nearby. \$2,000 per month plus utilities. Phone 979-6438.

**Available pre-Christmas to May.** Front half of beautifully restored cottage on quiet dead-end street facing directly onto Ramsden Park. 10-minute walk to campus. Owner away on sabbatical and can leave house fully furnished and equipped. Second-floor loft, front porch, back deck & garden, laundry, parking. Perfect for single person or couple. Non-smoker preferred. Rent: \$1,200 inclusive. 968-3999.

**Avenue Road/Health Street.** Beautifully furnished 1-bedroom apartment, with underground parking, easily accessible. University by TTC bus. Available for 6 months (or longer by agreement) from November 1996. No smoking and no pets. \$850/month, including utilities. (416) 978-5662 or ab.miller@utoronto.ca

**3-month sublet, Olive Avenue, 1st floor & basement of house; furnished, 2 bedrooms, 2 washrooms, bright, quiet, 5 appliances including dishwasher, fireplace, carpeted, 20-minute walk to University.** January 1 — March 31/97. Near subway/shopping. Ideal for visiting professor. \$1,200/month inclusive. No pets. Non-smoker. 344-2550.

**Bay/Bloor area, 1-bedroom, fully furnished** condo. Dishwasher, balcony, beautiful view

of lake. References. Available October 31, indefinite period. \$850/month inclusive. Leave a message at 962-8169 or call 972-0743 around 6 p.m.

**Cabbagetown, Wellesley Park area.** Comfortably furnished semi-detached. 3 stores, 3 bedrooms + 2 studies, 2 1/2 baths, laundry, garden, walk to U of T, TTC, parks. Available January/December 1997. Dates flexible. \$1,900 + utilities. (416) 925-2122.

**Beautiful, Victorian 3-storey house** for rent furnished or unfurnished. 4 bedrooms, office, 2 1/2 bathrooms, huge living and dining-room with 2 fireplaces and 12-foot ceilings. Hardwood floors, antiques, grand piano, new kitchen, luxurious master bedroom and bath with Jacuzzi. Parking, patio, laundry, security system, close to the University of Toronto. Available in December. \$2,200 per month. Call (416) 515-7703.

## ACCOMMODATION RENTALS REQUIRED

Visiting academic couple, non-smokers, no pets, seeks furnished accommodation, preferably close to the University of Toronto, January to May 1997. A large one-bedroom or a two-bedroom apartment or condominium preferred. Please call (604) 660-1382.

**Ph.D. couple, small child, seeks furnished** one or two-bedroom accommodation near U of T subway, January to May (or 1997). Budget modest but alternatively can offer 2-bedroom furnished apartment by Danube overlooking parliament in Budapest in exchange (car, computer, etc. negotiable). E-mail: glorie@chess.utoronto.ca 794-4358 (leave message).

**Two reliable and responsible non-smoking females** available for house-sitting between January and April 1997. We are Queen's University education students completing teaching practicum in Toronto area. References available. Please call Sarah at (613) 546-0607 or e-mail 3j5m25@link.queensu.ca

## ACCOMMODATION SHARED

**Witty, mature student looking for female** non-smoker to share 3-bedroom, 2-bathroom, balcony apartment, Rosedale. Includes heating & cable TV, hydro extra. Overlooks ravine. Bohemian & bourgeois welcome. \$599/month. Call 969-9181.

## ACCOMMODATION OUT OF TOWN

**Vancouver home to rent** near UBC. Fully renovated and furnished architect-designed house in quiet neighbourhood, close to shops, park, 4 bedrooms, 3 1/2 bathrooms,

hardwood floors, sun-decks, stairs, lights, sauna, fireplace, dishwasher, microwave, overhills, 15 min. to U of T. Tel: 972-0743. Fax: 972-0743. E-mail: pederson@unix.utoronto.ca

## ACCOMMODATION OVERSEAS

**Provence, South of France.** 3-bedroom house (furnished) in the picturesque village of Puyoubert. 20 km. east of Aix-en-Provence. Phone, washer, central heating. Available from December 1996. \$1,000 per month including utilities. Beth (416) 978-7458 or 588-2580 or b.savan@utoronto.ca

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## HEALTH SERVICES

**PERSONAL COUNSELLING** in a caring, confidential environment. U of T staff extended health benefits provide excellent coverage. Dr. Ellen Greenberg, Registered Psychologist, The Medical Arts Building, 170 St. George Street. 944-3799.

**Individual and Couple Psychotherapy.** Daytime and evening hours. U of T staff extended health benefits provide full coverage. Dr. Gale Birlfeld, Registered Psychologist, C.M. Hincks Institute, 114 Maitland Street (Wellesley and Jarvis). 469-6317.

**Individual psychotherapy for adults.** Evening hours available. Extended benefits coverage for U of T staff. Dr. Paula Gardner, Registered Psychologist, 183 St. Clair Avenue West (St. Clair and Avenue Road). 929-3084.

**PSYCHOANALYTIC PSYCHOTHERAPY** with a Registered Psychologist. Dr. June Higgins, The Medical Arts Building, 170 St. George Street (Bloor and St. George). 928-3460.

**Psychologist providing individual and group psychotherapy.** Work stress, anxiety, depression and women's health. U of T staff health plan covers cost. Dr. Sarah Maddocks, registered psychologist, 114

Maitland Street (Wellesley & Jarvis). 972-1935 ext. 3321.

**David Day, Registered Psychologist,** providing counselling, psychotherapy, crisis and post-traumatic stress disorder. If your inquiry cannot be answered in person, please include the most convenient time to return your call: 455 Spadina Avenue (College and Spadina), Suite 216. 977-8494.

**Psychological services for children, adolescents and families.** Comprehensive assessment of learning problems, emotional and behavioural difficulties. Individual psychotherapy, parent counselling. Dr. Megan Smith and Dr. Ariene Young, Registered Psychologists. U of T area. 926-0218. Leave message.

**Psychotherapy.** Dr. Joan Halbert, Psychologist, Yonge Street near Davisville. (416) 465-9078. Focus on depression, anxiety, substance abuse, difficulties with assertiveness, relationship problems, self-esteem, abusive relationships. Fees may be covered by Employee Health Insurance Plan.

**Psychologist providing individual, group and couple therapy.** Personal and relationship issues. U of T extended health plan covers psychological services. For a consultation call Dr. Heather A. White, 535-9432, 140 Albany Avenue (Bathurst/Bloor).

**GROUP THERAPY.** For professionals counselling survivors. Twelve-week structured sessions provide strategies to counter the effects of secondary traumatization. Focus on self-care issues and support. Ramona Alagappa, Certified Social Manager, Broadway and Danforth. 469-4985.

**Individual psychotherapy for adults.** Day or evening hours available. U of T extended health benefits accepted. Dr. Carol Musselman, Registered Psychologist, OISE/UT Psychoeducational Clinic, 252 Bloor Street W. 923-6641, ext. 2448.

**BRIEF AND LONG-TERM PSYCHOTHERAPY** provided by a Registered Psychologist, Dr. Sarita Sahay. Daytime and evening appointments available. Cost is covered for U of T staff through health benefits. 439 Spadina Road (Spadina and St. Clair). 322-6620.

**COGNITIVE-BEHAVIOUR THERAPY** for stress, anxiety, depression and women's health. ADO and LD assessments for children/adolescents. U of T extended benefits cover cost. Dr. Jennifer-Ann Shillingford, Registered Psychologist, 131 Bloor Street West. 964-0224. Mississauga office also.

**Specialist in Health Psychology/Behavioural Medicine.** Cognitive/problem-solving focus for adults coping with medical illness, addictions, stress, life change, bereavement. General counselling/

psychotherapy. Offices in Toronto and Scarborough. Dr. Robert Woods, Registered Psychologist (416) 755-8816.

**Massage — virtually free** for full-time staff/faculty with M.D. script. Medical Arts Building, Ann Rubenmott, B.A., R.M.T. (1970). Tel. 9601111.

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**Spanish classes at OISE/UT.** Get serious about learning the language and culture while having fun. Communicative method. Language native instructor with more than 13 years' experience in foreign language teaching. September 30 — December 13. Call 977-3577.

**OPEN HOUSE** at the University Women's Club, 162 St. George Street, on Sunday, October 27, from 3:00-5:30 p.m. Everyone is welcome. Please reserve by calling (416) 978-2000.

**Parent-Infant Program.** Institute of Child Study, 45 Welmar Road. Spaces still available for infants and caretakers. (0-21 months). Monday, Thursday, Friday mornings. Informal play program run by staff. Graduate students participate and observe. 2 sessions. Sept-Dec, Jan-April. \$110 per session. 978-6688.

**BOOKS! BOOKS! Bargains galore**, used and new, at the University College Alumni Book Sale, King's College Circle, U of T campus (Queen's Park subway). Sat. Oct. 19 (10-5), Sun. Oct. 20 (11-4, free parking on campus today), Mon. Oct. 21 and Tues. Oct. 22 (10-8) and Wed. Oct. 23 (10-1). Proceeds support College library. Information: (416) 978-2968.

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## PHD ORALS

Graduate faculty please call the PhD examinations office at 978-5258 for information regarding time and location for these listings.

### TUESDAY, OCTOBER 2

Daniel Alexander Kuchma, Civil Engineering, "Strength and Ductility of Reinforced Concrete Wall Elements."  
Prof. M.P. Collins.

Shihong Ma, Chemistry, "Ring Opening Reactions of Oxabyridic Compounds: Formation of Substituted Cyclohexadienes, Cyclohexenols and Cycloheptenols."  
Prof. M. Lautens.

### WEDNESDAY, OCTOBER 3

Colm Doan MacKinnon, Physiology, "Dipole Source Analysis of Movement-Related Cerebral Potentials."  
Prof. W.G. Tatton.

### THURSDAY, OCTOBER 4

Kathryn Anne McKenna, Education, "Intersubjective Dreams and Nightmares: Exploring the Subtext of Pedagogical Interactions."  
Prof. K. Dehli.

Kathryn Le Woodcock, Mechanical & Industrial Engineering, "Causal Reasoning in Industrial Safety Specialists."  
Prof. A.M. Smiley, P. Milgram.

### FRIDAY, OCTOBER 5

Herbert Berg, Study of Religion, "The Use of Ibn 'Abbas in Al-Tabarī's Tafsīr and the Development of Exegesis in Early Islam."  
Prof. J.D. McAuliffe.

Chris Lee Nighman, History, "Reform and Humanism in the Sermons of Richard Fleming at the Council of Constance (1417)."  
Prof. J.W. Goering.

### TUESDAY, OCTOBER 8

Mohammad Jafar Abdekhodaei, Chemical Engineering & Applied Chemistry, "Composites of Hydrophilic and Hydrophobic Polymers in Controlled Release Drug Delivery Systems."  
Prof. Y.L. Cheng.

### WEDNESDAY, OCTOBER 9

Karen Zown-Hua Li, Psychology, "An Investigation of Age Differences in Working Memory and Attention."  
Prof. F.L.M. Craik.

### THURSDAY, OCTOBER 10

Rae Suk-Man Yeung, Immunology, "Of Men in Mice: Towards Reconstructing the Human Immune System in Mice."  
Prof. T.W. Mak.

### FRIDAY, OCTOBER 11

Karen Lynda Hobden, Psychology, "Behavioral versus Claimed Self-Handicapping: Underlying Motivations and Attributions following Failure."  
Prof. P. Pliner.

Adam Christopher Hunt, English, "The Captain of Industry in British Literature, 1904-1920."  
Prof. H. Auster.

Miodrag Jankovic, Mechanical & Industrial Engineering, "Study of Atmospheric Plasma Spray Process with the Emphasis on the Gas Shrouded Nozzles."  
Prof. J. Mostaghimi.

Tim John Prior, English, "Classical and Grotesque Bodies: Some Aspects of Courtesy Literature and the Mid-18th-Century Comic Novel."  
Prof. P.C. Bruckmann.

## RESEARCH NOTICES

For further information and application forms for the following agencies, please contact University of Toronto Research Services (UTRS) at 978-2163; Web site, <http://library.utoronto.ca/www/rii/bmpage>

### INTERNATIONAL ASSOCIATION OF COLLEGES & UNIVERSITIES OF CANADA

Canada-Latin America research links program faculty travel grants will enable Canadian researchers to travel to one or more of the eligible countries. Graduate student internships enable young Canadian scholars to spend short periods of time in Latin America. Deadline is October 15.

SHASTRI INDO-CANADIAN INSTITUTE Women and development: the institute invites applications in the following categories: faculty research fellowships, doctoral research fellowship, pilot project awards, visiting lectureships. Deadline is October 31.

MEDICINE & LIFE SCIENCES ALZHEIMER SOCIETY OF CANADA The society supports activities that will enhance information relevant to the biomedical, social and psychological aspects of Alzheimer's disease. Deadline is October 15.

EPFLEY FOUNDATION FOR RESEARCH The foundation will support research in the broad areas of physical and biological sciences. Deadline is November 1.

HEART & STROKE FOUNDATION Research traineeships applicants must be enrolled in a PhD program as of Sept. 1, 1997, and undertaking full-time research training in the cardiovascular or cerebrovascular fields. National health research and development program applied studentship in cardiovascular and cerebrovascular health research: the foundation and NHRDP have collaborated in the support of this program in recognition of the importance of further development and promoting applied health research in

Canada. Research fellowships: training awards for applicants with or expecting a PhD, MD, BM, DVM or equivalent degree. Medical scientist traineeships: the program is currently under review and may not be offered in 1997/98. Deadline is November 1.

MEDICAL RESEARCH COUNCIL The deadline for the following MRC fellowship programs is November 1: MRC, Centennial, MRC/CIBA-Geigy, Arthritis Society/MRC, Canadian Hypertension Society/MRC, Eastern Seal Research Institute/MRC, Foundation for Gene & Cell Therapy/MRC, Muscular Dystrophy Association of Canada/MRC, Schizophrenia Society of Canada/MRC, Canada-Singapore exchange program research fellowships, and Canadian Lung Association/MRC. Consult the current MRC guidebook or <http://www.hwc.ca/8100>

PARÉ-DAVIS RESEARCH INSTITUTE The institute is seeking a post-doctoral fellow to conduct basic research in the field of biochemical/molecular/in vitro toxicology. Deadline is October 15.

PHYSICAL SCIENCES & ENGINEERING CONNOUGHT FUND The McLean Award is made annually to an outstanding researcher who is within 12 years of his or her PhD and who is conducting basic research in any of the following fields: physics, chemistry, computer science, mathematics, the engineering sciences or the theory and methods of statistics. Deadline is November 1.

UPCOMING DEADLINES OCTOBER 4 Canada-European Community Program for Cooperation in Higher Education & Training

Human Resources Development Canada — Canada/European Community Program for Cooperation in Higher Education & Training Human Resources Development Canada/ Department of Foreign Affairs — Canada-European Union Higher Education Mobility Program

OCTOBER 15 American Health Assistance Foundation — Alzheimer's disease research grants Francis Families Foundation — Parker B. Francis fellowships Human Resources Development Canada — competitions on child care proposals Kidney Foundation of Canada — research grants Muscular Dystrophy Association of Canada — research grants National Cancer Institute of Canada — research, research personnel grants SSHRC — standard research and development grant programs

OCTOBER 18 Prix Galien — awards (nominations) OCTOBER 25 AUCC — professional partnerships program travel grants

OCTOBER 30 Centre for Studies in Defence Resources Management — proposals

OCTOBER 31 American Health Assistance Foundation — National Heart Foundation research grants AUCC — Reform through Knowledge projects

NOVEMBER 1 American Lung Association — clinical research grants, research grants, Dalsmeier research scholar awards Burroughs Wellcome Fund — new investigator awards, toxicology scholar awards, experimental therapeutics scholar awards NSERC — research grants



University of Toronto Knowledge Media Design Institute  
Informal Presentation and Discussion Series

KNOWLEDGE MEDIA DESIGN is the human-centred design of novel systems, technologies, artifacts, and documents that incorporate new media based on interactive computer and communications technology and that can dramatically enhance human creativity, learning, and knowledge building. The Knowledge Media Design Institute (KMDI) is a cross-disciplinary research institute recently established in the School of Graduate Studies which focuses on designing, developing, using, and studying novel knowledge media, on applying them to the creation and dissemination of knowledge, and on understanding their implications for individuals, for organizations, and for society.

### September - December 1996

**October 3** Advanced Human Computer Interface Design for Process Control Systems  
Kim Vicente, Mechanical-Industrial Engineering

**October 10** Human Centred Design  
Gale Moore, Research and Education Specialist and Peter Timmerman, Professor and Researcher IFIAS

**October 17** Computation and Biomedical Communications  
Nicholas Woolridge, Biomedical Communications

**October 24** Adaptive Technology  
Jutta Treviñas, Director of Adaptive Technology Research Centre

**October 31** Simulated Motor Skills for Character Animation  
Michiel van de Panne, Computer Science

**November 14** Internet Development In A Broad Band Intranet  
Paul Hoffer, Director of Culetech & Chair Ontario Arts Council

**November 28** Snapshots of Current U of T Web Research  
Graduate Student Presenters Solicited (contact Ann-Barbara Graff)

Unless otherwise specified, all sessions take place on Thursdays from 11:00 a.m. to 1:00 p.m. in Room 2357, Department of Biomedical Communications, Medical Sciences Building, 1 King's College Circle. Refreshments will be served.

To be added to the KMDI mailing list, please contact Ann-Barbara Graff at 978-5184 or [graff@dp.utoronto.ca](mailto:graff@dp.utoronto.ca).

Please visit our Web site at <http://www.bmc.med.utoronto.ca/kmd/i/> for regular updates.

## COMMITTEES

The Bulletin regularly publishes the terms of reference and membership of committees. The deadline for submissions is Monday, two weeks prior to publication.

### REVIEW

FACULTY OF ARTS AND SCIENCE External review committees have been established to review the physics department on Oct. 21 and 22, botany on Oct. 28 and 29 and English on Nov. 7 and 8.

Physics Professors Ian Orchard, associate dean, sciences, Faculty of Arts and Science (chair); Richard Johnson, atmospheric science, Colorado State University; and S.K. Mark, physics, McGill University.

Botany Professors Donald Dewees, vice-dean, Faculty of Arts and Science (chair); Dave Dennis, biology, Queen's University; and Elizabeth Lord, botany and plant sciences, University of California.

English Professors Janet Paterson, associate dean, humanities, Faculty of Arts and Science (chair); Alan Kennedy, English, Carnegie-Mellon University; and Adrienne Kertzer, chair, English, University of Calgary. The committees would be pleased to

receive comments from interested persons. These should be submitted to Office of the Dean, Room 2020, Sidney Smith Hall.

### SEARCH

CALL FOR NOMINATIONS In addition to the composition of the search committee for a dean of the School of Graduate Studies outlined in the Sept. 16 issue of The Bulletin, the Person Rules also provide for the possible inclusion of an alumna/a, a member of the administrative staff and a qualified individual from outside the university.

CALL FOR NOMINATIONS The provost seeks nominations from the university community to serve on the advisory committee that will assist in the search for a new warden of Hart House. All members of the university are invited to submit nominations for membership to this committee. Nominations should be directed to David Neelands, assistant vice-president (student affairs), Room 307, Koffler Student Services Centre, by October 15.

## BOOKS UNDER SIEGE

*Electronic libraries seem poised to triumph over the stacks. But at what cost?*

BY MATTHEW EDWARDS AND ROY PEARSON

ACADEMIC SCIENCE LIBRARIES are one of the principal archives of our collected scientific knowledge. A large one, like the Science and Medicine Library at U of T, houses millions of books and journals, some of which date back centuries. Maintaining such libraries has its costs. But those represent only a small fraction — far less than one per cent — of the actual costs of doing the scientific research itself.

In recent years the pace of scientific discovery has increased dramatically and this has been mirrored in many new journals appearing and in the doubling or tripling in size of older journals. This explosion has been especially concentrated in the life sciences where there has been unparalleled growth in fields such as cell and developmental biology.

With this ever-quickening pace of discovery it would be expected that commitments to maintain scientific archives would keep up. But budgets in many Canadian academic libraries have decreased due to reduced assistance to universities from governments. At U of T a recent cut amounted to 12 per cent of the whole library budget. Even when acquisitions budgets are protected, as is promised at this university, such big cuts do affect areas such as cataloguing, preservation and routine maintenance. Moreover, a fixed acquisitions budget still implies a reduction in the fraction of new scientific knowledge that is archived. As a real reflection of our current scientific progress, the library is in a state of net decline.

Decisions to cut library budgets have been accompanied by a shift away from the traditional print collections towards what is called the electronic library. In this futuristic vision, print journals are ultimately to be replaced by electronic variations of the same titles or by journals appearing in electronic form only (e-journals). A huge debate is currently going on as to whether such journals could actually replace the print journals. The issues are complex, dealing with ownership, accessibility, preservation and a host of other factors.

For an academic library the most critical of these is long-term preservation. Unfortunately data stored electronically have a woefully short shelf-life, typically less than a decade, as opposed to the centuries enjoyed by print. The media on which electronic data are stored — magnetic disks, tapes and optical disks — are intrinsically unstable. Magnetic disks, for example, are vulnerable to stray magnetic fields, oxidation and deterioration of the adhesive holding the storage material to the plastic surface.

YET THE LIMITED DURABILITY OF THE MEDIA IS NOT THE ONLY problem. New storage methods become obsolete with amazing rapidity and with each innovation archivists face the task of transferring material to the new storage format. This can be expensive. At the National Archives of Canada in the 1970s the entire electronic archive was copied from tape to tape and then in the 1980s from tape to optical disk. In library jargon these are termed "migrations."

An alternative libraries have is to warehouse every item of hardware and software they ever used so that data in any electronic medium might still be read. There are myriad problems and costs associated with this too. The choice between electronic migrations and electronic museums stands in stark contrast to the traditional method of keeping printed volumes in a secure library indefinitely. On the quiet floors housing the oldest collections of the Science and Medicine Library one gets the feeling — and the presence of many old books proves — that with reasonable care books and journals will last centuries.

In contemplating the transition to an electronic library, researchers must also come to grips with the issue of long-term ownership of the scientific archive. With scientific materials in electronic form being sold from foreign countries, or perhaps



passing through two, three or more resellers before reaching the academic library, how can long-term, secure access to these materials ever be guaranteed? In the future the enemies of scientific advancement may not have to burn libraries, as in the past, but only cut a cable or flick off a switch.

Meanwhile the savings promised by electronic journals may be challenged. The American Chemical Society estimates it costs 20 to 30 per cent less to produce an electronic version of a journal, compared to producing and delivering a print edition. However, to support electronic journals, libraries need to purchase hardware and software — which as noted quickly become dated — and provide ongoing technical support. When this is factored in, the case can be made that print still makes economic sense for libraries.

The virtual library presents problems in how it is actually used. The push to the electronic library is strongest in the sciences, partly because the journal format so central to sharing information in scientific fields lends itself to digitization. There is also an assumption that scientific and medical researchers will take readily to the electronic library.

The roots of this attitude seem to lie in a sort of *New Age* or *Star Trek* world-view. Looking far into the future, the electronic book is duly revered and it is a world in which the printed book is a fossil-like curiosity. Moving towards this imagined future reassures that the real future is under control. The scientist becomes a guinea pig in the unfolding information epic, perhaps ultimately to be transformed into a character like *Star Trek's* Data, reading hundreds of screens of information in a single second.

#### THE PUSH FOR ELECTRONIC LIBRARIES IS DRIVEN BY CORPORATIONS AND GOVERNMENTS

But though computers proliferate and the Internet extends its reach daily, the real experience of libraries is that researchers in the sciences, like their colleagues in the humanities, ultimately prefer to read from the printed page.

Not only do scientists like books and journals but they would like to see their articles appear in this form. They have done painstaking research and sweated to write up their projects and want their work recorded for good. Were a scientific publisher to close the print version of a journal, going totally electronic, submissions would dry up. As for the electronic-only journals — those created for cyberspace and not simply electronic

versions of printed journals — most are not peer-reviewed and they are frequently undited. Such journals, at least as they are evolving now, do not attract quality authors and will therefore play only a fringe role in the advancement of science.

JUST THE SAME, ONE OF THE ARGUMENTS raised for the electronic library is that it could do away with peer review and so "liberate" science. The name that frequently comes up in this connection is Paul Ginsparg, whose Internet-accessible electronic archive at the Los Alamos National Laboratory consists of advance versions of articles that have been submitted for peer review to traditional journals.

But the manuscripts have not yet been peer reviewed, and may in fact never be published. Scientists can view such "preprints," as they are called, via the Net and to enthusiasts they are seen as pure, unprocessed science and as a model for other disciplines. What is overlooked is that Ginsparg's system, while not employing peer review directly, piggybacks on it. It is the prospect of peer review by the journal receiving the actual manuscript that enforces the quality of the preprints. Moreover, a parasitic system of this type is not necessarily transferable to other fields. *The New England Journal of Medicine* has taken the position that preprints of medical articles containing preliminary data or false conclusions could pose a threat to the public.

Despite all these problems the electronic library does threaten the existence of the physical library as a place and as an institution. The effect of losing an actual location where knowledge is stored in highly usable form should not be underestimated. Libraries are not just passive receptacles for stored knowledge but are living, breathing entities always sought out by creative people. The library, with its promise of imminent discovery, catalyzes the creative process. The activity of browsing the book stacks is of reassuring immediacy, where each new finding leads in a domino effect to the next.

As a physical entity the electronic library, by definition, need only consist of banks of computer terminals. Ultimately the terminals may exist only in homes of users. At that point the public, social role of the science library would be lost. Yet does the Internet surfer, during his or her electronic browsing, find genuine enlightenment? Without denying that the medium is still evolving, it must be noted that the most common complaint of Internet users is that the sense of discovery is present but the actual yield of useful information frustratingly limited.

A recent book, *The End of Science* by John Horgan, predicts that science has reached its limits, having solved most of the big problems. This notion seems ridiculous. But the book may be prescient in one respect not considered by the author. For without a permanent written record of our collective scientific progress housed in secure science libraries, the potential for ultimate collapse of our scientific enterprise does indeed exist.

The push towards the electronic library is being driven, we argue, mainly by corporations and governments. They hope to solve problems, move society forward and perhaps save money. Yet their lifespans, the nature of their needs and problems and the technologies they embrace seem ephemeral next to the job of gathering and guarding the accumulating knowledge of humankind. There have been dark ages — when knowledge was lost and civilization set back — before. We must ask whether tampering with libraries now has the potential to undermine the scientific progress of future generations.

*The authors of this article are technicians in the Science and Medicine Library.*